

FIG. 1

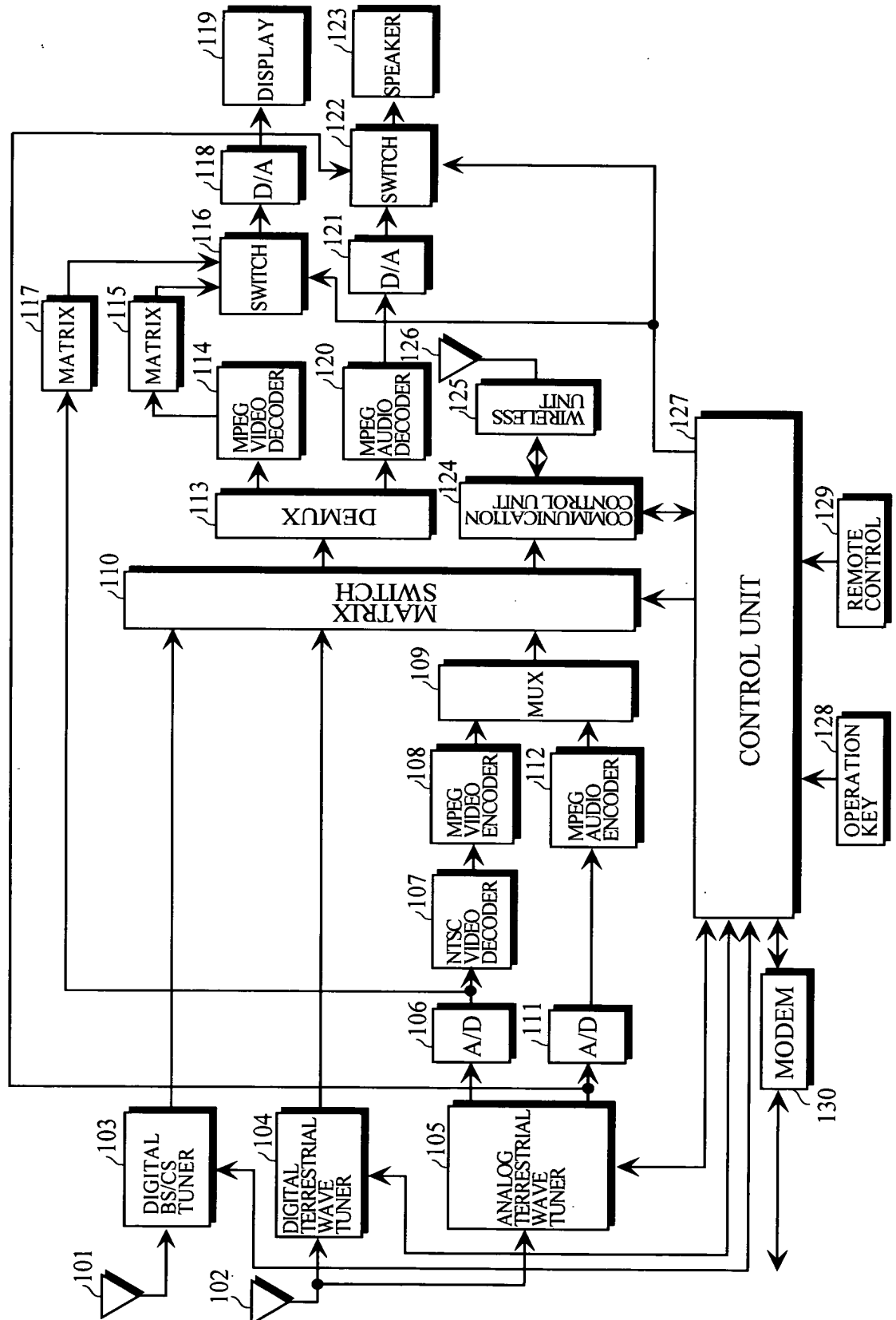


FIG. 2

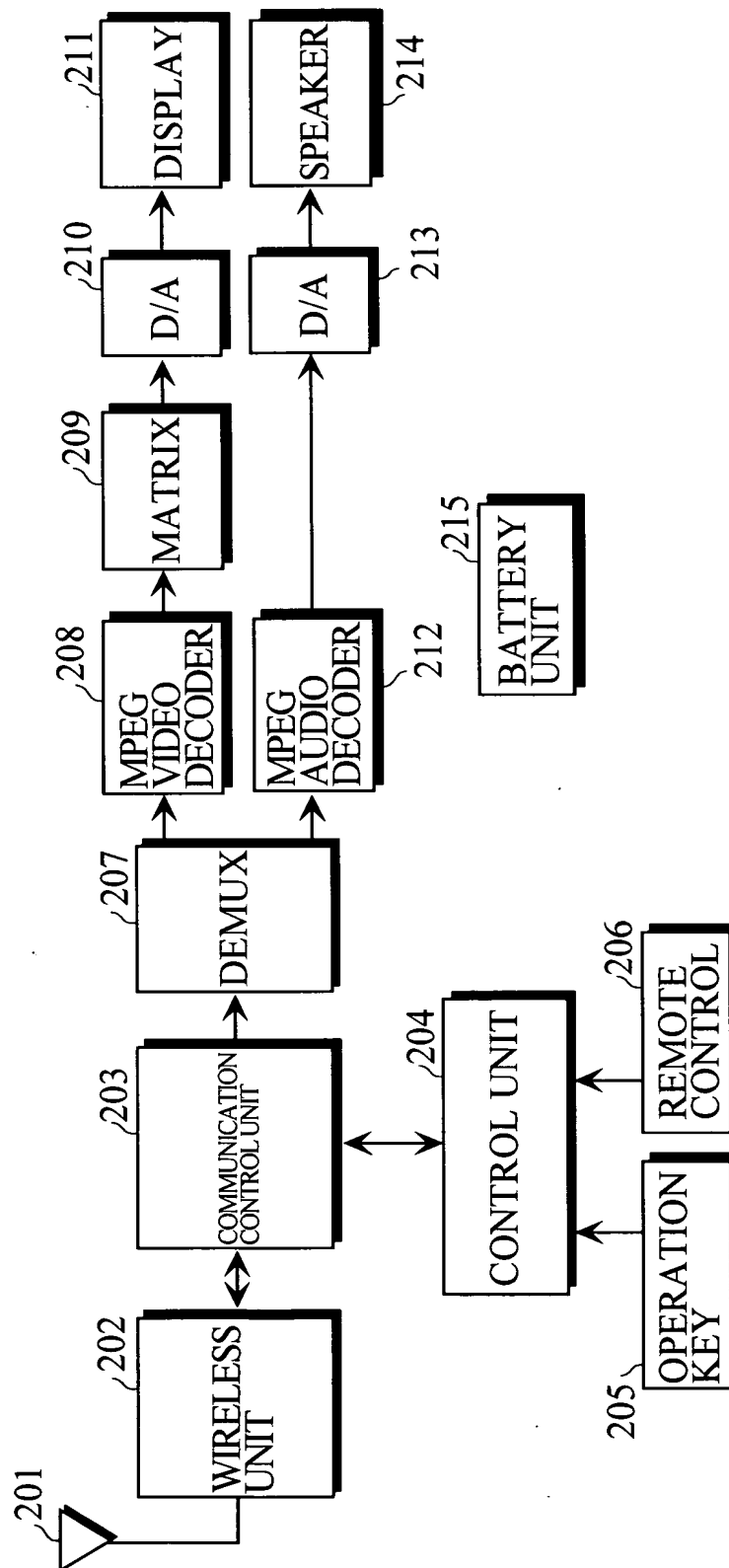
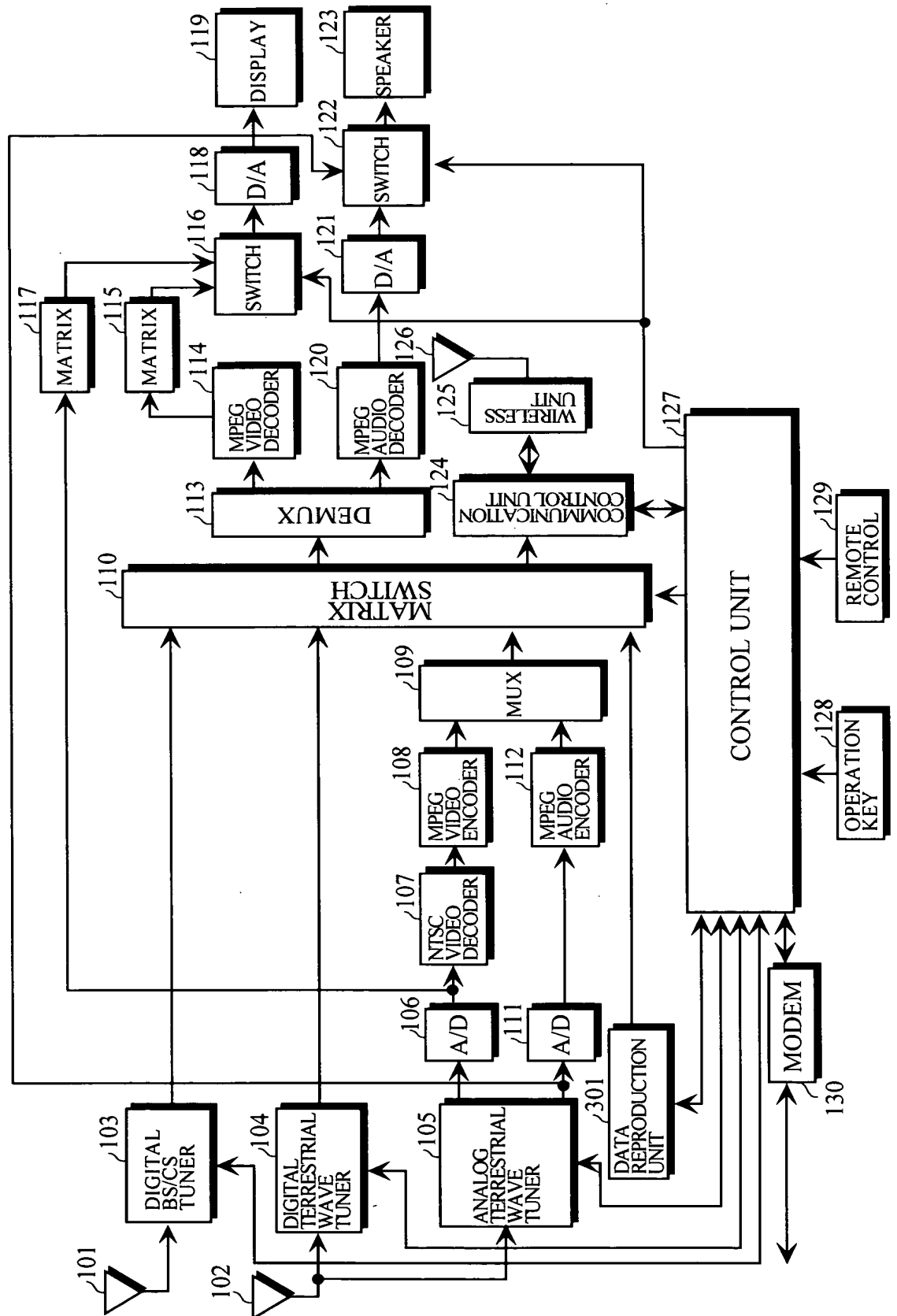


FIG. 3



The diagram illustrates a digital television system 400, partitioned into two main functional areas: 401 (left) and 402 (right).

Section 401 (Left): This section handles signal reception and initial processing. It includes two antennas, 101 and 102. Antenna 101 is connected to a digital BS/CS tuner 103. Antenna 102 is connected to both a digital terrestrial wave tuner 104 and an analog terrestrial wave tuner 105. The digital terrestrial wave tuner 104 outputs to an A/D converter 106. The analog terrestrial wave tuner 105 outputs to an A/D converter 111 and a data reproduction unit 301. The A/D converter 106 feeds into an NTSC video decoder 107, which then feeds into an MPEG video encoder 108. The A/D converter 111 feeds into an MPEG audio encoder 112. Both the MPEG video encoder 108 and the MPEG audio encoder 112 feed into a multiplexer (MUX) 109.

Section 402 (Right): This section handles signal distribution, decoding, and user interface. A large matrix switch 110 receives input from the MUX 109 and the digital BS/CS tuner 103. The matrix switch 110 routes signals to a demultiplexer (DEMUX) 113. The DEMUX 113 outputs to an MPEG video decoder 114 and an MPEG audio decoder 120. The MPEG video decoder 114 outputs to a switch 115, which then feeds into a D/A converter 116 and finally a display 119. The MPEG audio decoder 120 outputs to a switch 122, which then feeds into a D/A converter 121 and finally a speaker 123. A control unit 127 is connected to the matrix switch 110, the demux 113, the MPEG decoders 114 and 120, the switches 115 and 122, and the D/A converters 116 and 121. The control unit 127 is also connected to a communication unit 124, which in turn is connected to a wireless unit 125. A modem 130 is connected to the control unit 127 and the data reproduction unit 301. An operation key 128 and a remote control 129 are also connected to the control unit 127.